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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/576,085

04/14/2006

In Haeng Cho

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EXAMINER

KO, STEPHEN K

ART UNIT

PAPER NUMBER

1792

MAIL DATE

DELIVERY MODE

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/576,085	CHO ET AL.	
	Examiner	Art Unit	
	STEPHEN KO	1792	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 January 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) 1-4 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 5-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 October 2008 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☒ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>04/14/2006</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Applicant's election without traverse of claims 5-18 in the reply filed on 23rd January 2009 is acknowledged. Claims 1-4 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim.

Claim Objections

2. Claims 6-9 and 18 are objected to because of the following informalities: a) claim 6 recites limitation "between an upper arm" (L.2 of claim 6) is apparently should be written as "between the upper arm"; b) claim 7 recites limitation "dependant" (L.2 of claim 7) is apparently should be written as "depending"; c) claim 8 recites limitation "during a cycle to ensure that a wash cycle ends with the operation of an upper arm" is apparently should be written as "during the cycle to ensure that the wash cycle ends with the operation of the upper arm"; d) claim 9 recites limitation "discharge member from a time of" (L.2 of claim 9) should be written as "discharge member from the time of"; and e) claim 18 recites limitation "the operating nozzle is switched" (L.2 of claim 18) is apparently should be written as "the discharge member is switched".

Appropriate correction is required.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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4. Claim 18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

5. Claim 18 recites the limitation "the operating nozzle" in L.2 of claim 18. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 13-15 and 17-18 are rejected under 35 U.S.C. 102(b) as being anticipated by Milocco (US 5,264,043).

Milocco teaches a method for dishwasher comprising the steps of controlling the dishwasher such that a washing cycle ends with an operation of an upper spray arm (Fig.1, #11, col.5, L.3). Note that the upper spray arm actuated during phrase t3-t4 (Fig.2-4, col.5, L.3-16). Also note that a discharge member (Fig.1, #10 and #11 as a whole) switches between the upper spray arm and a lower spray arm during cleaning operation.

For claim 14, note that the operation of the discharge member switching between the upper arm and a lower arm has a switching interval depending on an operation of a wash pump (Fig.3-4, a gap between t2 and t3, col.4, L.48-49).

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For claim 15, note that during the operation of the wash pump, the upper spray arm or the lower spray arm operates, and a programmer (read as controller, col.4, #39) measures a running time of the wash pump (Fig.2-4, t1, t2, t3, t4).

For claim 17, note that switching of the discharge member between the upper arm and the lower arm occurs at least once (Fig.3-4), whereupon a programmer (read as controller, col.4, #39) measures a running time of the wash pump (Fig.2-4, t1, t2, t3, t4).

For claim 18, note that water supplied is switched from the lower arm to the upper arm when the running time of the pump reaches t2 (read as if the running time of the wash pump reaches a preset time stored in the controller, Fig.2-3).

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

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10. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

11. Claims 5-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Milocco (US 5,264,043).

Milocco teaches a control method for dishwasher comprising the steps of operating a pump (Fig.1, #8, col.3, L.46) and discharge member (Fig.1, #10 and #11 as a whole); and controlling the dishwasher such that a washing cycle ends with an operation of an upper spray arm (Fig.1, #11, col.5, L.3). Note that the upper spray arm actuated during phrase t3-t4 (Fig.2-4, col.5, L.3-16).

Milocco remains silent about the steps of selecting a wash cycle by a user and inputting operation commands; and beginning a cycle according to the selection of the wash cycle.

However, examiner takes official notice that the steps of selecting a wash cycle by a user and inputting operation commands; and beginning a cycle according to the selection of the wash cycle is well known in the art.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the method of Milocco by adding the steps of selecting a wash cycle by a user and inputting operation commands; and beginning a cycle according to the selection of the wash cycle to optimize cleaning performance according to the condition of the dishes.

For claim 6, note that the flow distributor switches between the upper spray arm and a lower spray arm (Milocco, Fig.3-4).

For claim 7, note that the discharge member has a running time depending on the operation of the wash pump.

For claim 8, note that a programmer (read as controller, Milocco, col.4, L.39) switches the discharge member at time t3 (read as switching the discharge member by a controller when the running time of the wash pump reaches a first setting time, Milocco, col.4, L.39-42).

For claim 9, note that operating a switched discharged member until time t4 (read as operating a switched discharge member from the time of switching the discharge member until the running time of the wash pump reaches a second setting time, Milocco, Fig.3-4).

12. Claims 10-12 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Milocco (US 5,264,043) in view of Ranft (US 4,730,630).

Milocco teaches a controlling method for a dishwasher cited above. Note that Milocco teaches performing remaining stages of the washing cycle and other operations are performed after operation of the upper spray arm.

Milocco does not teach the steps of determining by the controller whether the switched discharged member is the upper arm when the running time of the wash pump reaches the second setting time; if the switched discharge member is determined to be the upper arm, remaining stages of the wash cycle and other operations are performed; and if the switched discharge member is determined not to be the upper arm, the upper arm is designated as the operation discharge member and remaining stage of the wash cycle and other operations are performed.

However, Ranft teaches that it is beneficial to end a cycle by supplying water from an upper arm to wash off any accumulated soil particles that may adhere to the dishes being washed (col.7, L.6-11).

Since the controller of Milocco is readily programmable by a person skilled in the art and it is known in the art that it is beneficial to end a cycle by supplying water from an upper arm to wash off any accumulated soil particles that may adhere to the dishes being washed, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the control method of Milocco by adding the steps of ensuring the cycle ends by determining by the controller whether the switched discharged member is the upper arm when the running time of the wash pump reaches the second setting time; if the switched discharge member is determined to be the upper arm, remaining stages of the wash cycle and other operations are performed; and if the switched discharge member is determined not to be the upper arm, the upper arm is designated as the operation discharge member and remaining stage of the wash cycle and other operations are performed as inspired by Ranft in order to make sure

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any accumulated soil particles that may adhere to the dishes being washed are washed off at the end of the cycle, which enhance cleaning.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to STEPHEN KO whose telephone number is (571)270-3726. The examiner can normally be reached on Monday to Thursday, 7:30am to 5:30pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Kornakov can be reached on 571-272-1303. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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Supervisory Patent Examiner, Art Unit 1792